



US005790588A

United States Patent [19]

Fukawa et al.

[11] Patent Number: **5,790,588**
 [45] Date of Patent: **Aug. 4, 1998**

[54] SPREAD SPECTRUM TRANSMITTER AND RECEIVER EMPLOYING COMPOSITE SPREADING CODES

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[21] Appl. No.: **658,123**

[22] Filed: **Jun. 4, 1996**

[30] Foreign Application Priority Data

Jun. 7, 1995 [JP] Japan 7-140542

[51] Int. Cl.⁶ **H04B 1/707**; H04J 13/04

[52] U.S. Cl. **375/200**; 375/206; 375/208; 370/342

[58] Field of Search 375/200, 202, 375/203, 206, 208; 370/342

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[57] ABSTRACT

In a system with a spread spectrum transmitter and receiver employing composite spreading codes, the transmitter spreads, in a spreading part, a baseband modulated signal by a short code from a short code generator and a long code from a long code generator with a longer chip period than that of the short code and then transmits the spread baseband modulated signal. The receiver despreads a spread baseband received signal in a receiving part by a pair of short and long codes in one despreading part to obtain a baseband modulated signal of a direct path and despreads the spread baseband received signal by the pair of short and long codes delayed by a multipath delay time difference in the other despreading part to obtain a baseband modulated signal of a delayed path, and the baseband modulated signals thus obtained are diversity-detected to obtain a detected baseband signal.

22 Claims, 18 Drawing Sheets

